Dr. Matthias Kleespies, Am Bächle 8, 87784 Westerheim

United States Patent and Trademark Office
Patent Examiner Deborah K. Ware
P. O. Box 1450

Alexandria, VA 22313 - 1460
Via Fax to 001-703-872-9306

2004-04-02

Office Action Summary, Application No. 09/915,469

Dear Mrs. Ware,

Thank you for your uncomplicated way of dealing with my pending patent.

As you desired, I will send you within the following **6 pages**:

- my answer to your Office Action Summary of March 2003 (**4 pages**)
- the document containing the tracking number of your email system concerning my email of March, 30th, 2003 (**1 page**)

In some cases you might find the style of my answer to your non final a little cheeky. When I wrote it, I was a little angry about your continuous – and, as I felt unjustified – rejections.

However, I changed my point of view. I hope that we can find a way to discuss and negotiate the claims (some of them certainly are useless) so that we will commonly bring the story to an end that is desirable for both of us. Meanwhile, the patent is issued in every European country. I am now looking forward to get the patent issued in the U. S. A. as well. As Mr. Meister told you, we would like to bring one or some of the products described in the patent to the U. S. markets by licensing the technology to North American companies.

You can reach me:

By phone: **0049-8336-813614**
By fax: see above (please preadvise me your faxes since the fax machine normally is switched off)
By email: M.Kleespies@curonia.com

I would prefer to discuss the details by email, since it is a little easier for me to write in English than speaking English.

Thank you.

Regards,

M. Kleespies

Dr. Matthias Kleespies

Dr. Matthias Kleespies, Am Bächle 8, 87784 Westerheim, Germany

United States Department of Commerce
United States Patent and Trademark Office –
Patent Examiner Deborah K. Ware
Commissioner of Patents and Trademarks

Washington, D. C. 20231
USA

Office Action Summary, Application No. 09/915,469
Title: Process to create solid bodies, and uses for such bodies
Serial No.: 09/915,469, Group: 1651
Filed: May 21, 2001, Applicant: Matthias Kleespies

Dear Mrs. Ware,

thank you for filing the paper of Pidoux et al.
This paper strongly supports my point of view concerning the differences between milk kefir and sugary kefir already filed on July, 26th, 2002.

The following is cited from Pidoux et al., Introduction:

„The „sugary" kefir grains must be distinguished from the better known „milky" kefir grains (Mann, 1984)."

Thus, none of the patents dealing with **milk** kefir are suited to reject my claims. You admit that „the claims differ from Murofushi et al. in that milk kefir is the source of kefir grain for the process and not sugary kefir." (Page 3, Paragraph 6). Thus, if you try to reject my claims with arguments taken from Pidoux et al. (5) and additionally taken from Murofushi et al. (6), you – sorry – contradict yourself.

Arguments against your rejections claimed on page 3

In Paragraph 3, you point out that „claims are drawn to a process for making solid bodies".

The article of Pidoux et al. does **not** teach how **solid bodies** can be made from sugary kefir grains.
Pidoux et al. use the process of drying for scientific purposes – they want to investigate the polysaccharide. Drying is a very common and well known process for scientific investigations of many kinds of polymers, not only polysaccharides. For example, proteins and DNA fractions also have to be dried before the application of certain investigation methods. Pidoux et al. clearly **purify** the polymer and **dissolve** it in water before drying it. In my claims, no such **purification** step is mentioned (I **separate** the polymer from the **liquid**, but I don't purify it).
There is no reference to the term **„solid bodies"** within the whole text. The paper of Pidoux et al. does **not** teach how modifying the polymer leads to modified **solid bodies**. The polymer is only modified for analytical purposes. This can be easily derived from the paper itself, since the modification methods are described under „Analytical methods", page 417, all lines.
If one of skill could have derived the forming of solid **bodies** (for **technical** use) from sugary kefir's polysaccharide from this paper, why then did none of the experts all over the world report a process for the formation of solid bodies from sugary kefir's polysaccharide during the whole period between 1988 and the initial filing of my claimed invention?
Why does not one technical product derived from sugary kefir's polysaccharide exist to date?

The cited paper obviously is the only one you could find containing the words „sugary kefir" and „drying". This to me cannot serve as a circumstantial evidence for a formerly existing state of the art. Perhaps you would also have rejected the invention of the automotive car argueing that a coach also had for wheels or that machines were well known before.

The patent of Murofushi et al. does **not** teach how **solid bodies** can be made form sugary kefir's polysaccharides. In contrast, you admit in paragraph 4 that „Murofushi et al. teach a process for making kefir grain **soluble** substances .... wherein milky kefir grains are mixed ..... which are sieved.....
The purpose of Murofushi's patent clearly is to obtain one single **soluble fraction** with **strong antitumor action**. The process of freeze drying was well known long before Murofushi's claimed invention was filed. Thus, the mere mention of freeze drying by Murofushi's patent is not suited to reject my claims.

According to your filing (paragraph 8), Kulkarni et al. use propellants added to a polysaccharide mixture to improve **drying**. However, this is not why I use propellants. The aim of using propellants as claimed in claim 5 of my patent is to improve the formation of a **solid body with certain properties**, not the process of drying per se.

Commentaries on your arguments on page 2

Biopolymer mixture: Pidoux et al. write (page 419, line 12): "On the other hand, the hypothesis of a mixing of gelling and non-gelling dextrans constituting the grains cannot be excluded". Thus, Pidoux et al. clearly support our term „biopolymer mixture" (a **mixing** ....constituting the **grains**). This term means the grains per se, not a mixture between liquid and grain. Since the grains are formed in a liquid medium, the biopolymer mixture (the grains) inherently are surrounded by liquid from the moment they are formed by the kefir culture. This exactly is the reason for the process step referred to as „separating the grains from the liquid by sieving". After separating the grain from the liquid, the biopolymer per se still is the biopolymer per se (as it was before the separation step), and, yes, it can be dried to perform solid bodies.

This exactly is the invention: separating a grain (biopolymer mixture) from the liquid and drying the **wet** and therefore **flexible** body (the grain; biopolymer surrounded by liquid) to form a **solid body**. The flexibility of the wet grain is one of its natural properties. For example, wet paper or wet wood is more flexible than dry paper or wood, whereas wet metal does not have different properties as compared to dry metal.
Thus, by performing the drying step claimed in the initial invention (claim 1), the sugary kefir biopolymer mixture receives completely **new** properties (the grain or biopolymer mixture is converted into a **solid body**), which are not described or implicated in any of the papers or patents you mentioned.

(**Note**: If it is possible to patent a genetically engineered microorganism by simply adding properties of one organism, which were well known and described before the act of genetic engineering, to another organism with properties known before as well, it should be possible to patent a process with aims or implications never described before by using a microorganism described by others before as well.)

„**Wastes and nutrients**": There is a well established technology referred to as „waste water treatment" whose only purpose is to use wastes as nutrients. Why should a microorganism utilize one microgram of a substance referred to as „wastes" by humans if the microorganism itself would not recognize this waste as a nutrient?
It is a well known and established fact that microorganisms use „wastes" as nutrients. For example, the beverage industry widely produces „waste" waters, whose waste substances are used by microorganisms as nutrients. Pidoux et al. clearly show that sugary kefir consists of several **microorganisms**. Molasses, as suggested in our claim, clearly is regarded as a waste substance by humans. Anyway, it may serve as a nutrient for sugary kefir.

Perhaps, I could describe the term more clearly as „organic wastes from food industries utilizable as nutrients by sugary kefir cultures".

„Propellant": see above (Kulkarni)

Chemically modifying: A suggestion for a clearer formulation: The polymer or polymer mixture is modified by agents attacking one ore more of the polysaccharide´s OH-groups rendering the polymer more hydrophobic or interlinking compartments of the polymer according to the degree of modification. This step is carried out under conditions suitable for such a modification. A suitable agent for example could be the anhydride of acetic acid.

Dear Mrs. Ware, I hope that I could clarify the ambiguous passages in my patent. I cannot see that anyone of skill could have derived my invention from the existing literature. The only paper containing the phrases „sugary kefir" and „drying" you could find to support your thesis of „anyone of skill could have derived..." is that of Pidoux et al. How large is – according to your estimates – the probability that I intentionally found this one paper among the billions of scientific papers and/or patents to subsequently derive my invention from it? Why did Pidoux et al. themselves did not describe anything **really** resembling my invention if anyone of skill could have derived the invention from it. Who could be more skilled than Pidoux et al. if it were that simple?

I would like to call you by phone in a few weeks to discuss a possible way with you that could lead to the US-Patent I desire.

Best regards,

Dr. Matthias Kleespies

Dear M.Kleespies@euronia.com,

The United States Patent and Trademark Office received your e-mail on 3/30/03. You will receive a response from General Information Services within the next business day. Your tracking number for this request is T20030330001W.

Thank You

Received: 3/30/03 11:39:37 AM
Sender: M.Kleespies@euronia.com
Subject: To Mrs. Deborah K. Ware

Dear Mrs. Ware,

attached please find my answer to your Office Action Summary, which I also
sent to you via air mail.

Regards,

Dr. Matthias Kleespies